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Group Art Unit: 2663
Examiner: Derrick W. Ferris

REMARKS

Claims 1, 3 through 6, 24 through 26 remain in this application. Claim 1 has been amended.

Claim rejections under 35 U.S.C. 103

The Office Action rejected claims 1, 3 through 6 and 24 through 26 as being unpatentable over U.S. Patent No. 5,461,624 (the "Mazzola reference") in view of the article, "TUBA: Replacing IP with CLNP," (the "Katz reference"). However, the references either alone or in combination fail to disclose or suggest the requirements of the claims.

Independent Claim 1 and dependent claims 3 through 6

Independent claim 1 requires receiving IP packets from a remote IP management device at a local IP gateway connected to the synchronous optical network; and routing the IP packet to an IP tunneling layer network interface, wherein the IP tunneling layer network interface translates the IP packet to a second protocol to be transmitted over a data communications channel in overhead of frames in the synchronous optical network to a remote IP gateway connected to the IP device.

As shown in Figure 2 and Figure 3 of the specification and described at page 2, lines 5 through 22, the prior art techniques did not use the DCC in SONET or SDH overhead, but used either a separate network or embedded management information in a data path in the SONET/SDH network. The present invention obviates the above deficiencies of the known techniques by tunneling management data and other information to and from remotely located IP NEs via the SONET or SDH DCC by placing IP over the CLNP, as stated at page 2, line 24 through page 3, line 2. The present invention thus provides a novel and non-obvious use of the data communications channel in overhead of frames in the synchronous optical network.

The cited prior art fails to show, *inter alia*, the requirement of claim 1 of, "routing the IP packet to an IP tunneling layer network interface, wherein the IP tunneling layer network

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interface translates the IP packet to a second protocol to be transmitted over a data communications channel in overhead of frames in the synchronous optical network to a remote IP gateway connected to the IP device." As stated in the Office Action, the Mazzola reference does not show routing IP over SONET. Furthermore, the Katz reference nowhere discloses a synchronous optical network or a DCC channel in synchronous optical network overhead or transmitting IP packets over DCC channel in overhead of a synchronous optical network.

Even if the Mazzola reference and the Katz reference are combined, neither suggests or discloses translating IP packets for transmission over DCC channel in overhead of a synchronous optical frame. The motivation provided by the Office Action is a quote from the specification, "The present invention obviates the above deficiencies of the known techniques by tunneling management data and other information to and from remotely located IP NEs via the SONET DCC by placing IP over the Connectionless Network Protocol that is present in OSI." The citation of the specification's own teachings to argue obviousness over prior art is improper. *In re Dembiczak*, 175 F.3d 994, 999, (criticizing hindsight syndrome wherein that which only the inventor taught is used against the teacher). "The court must be ever alert not to read obviousness into an invention on the basis of the applicant's own statements; that is, we must view the prior art without reading into that art appellant's teachings." *Application of Nomiya*, 184 U.S.P.Q. 607, 612 (Cust. & Pat.App. 1975).

The only other motivation cited in the Office Action is that the Mazzola reference provides block diagrams of an IS circuit pack and an ES/IS circuit specific for a SONET application and states that an IS circuit pack and ES/IS circuit pack type distributed routing network element may be used in connection with other protocols as well, at column 5, lines 7 through 11. The fact that distributed routing network element may be used in connection with other protocols is not a suggestion of translating an IP packet to a second protocol to be transmitted over a data communications channel in overhead of frames in a synchronous optical network.

In addition, the Katz reference teaches away from the present invention by promoting using CLNP instead of IP, as stated in the first paragraph, "We propose using the Connectionless

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Network Protocol (CLNP) supported by the associated OSI routing protocols, as a replacement for IP.” The quotation in the Office Action of mapping IP functionality to CLNP on page 44 of the Katz reference explains how CLNP can be used as a replacement to IP, stating, “Using CLNP in place of IP requires that all three services of IP visible from the transport layer be mapped to CLNP.” Thus, the Katz reference nowhere promotes the translation of IP into CLNP but rather the replacement of IP with CLNP. And in any case, the Katz reference fails to even disclose a synchronous optical network or a data communications channel in synchronous optical network overhead, and thus certainly can not suggest a use of the data communications channel in synchronous optical frame overhead to transmit data to a remotely located IP device.

Independent Claim 24 and dependent claims 25 and 26

Independent claim 24 requires a first interface for receiving IP packets from the IP network; a routing table for storing information about IP devices connected to network elements in the synchronous optical network; and an IP tunneling layer network interface that translates the IP packets into a second protocol to be communicated over a data communication channel in overhead of synchronous optical frames in the synchronous optical network and wherein the routing table is used to determine a destination network element in the synchronous optical network.

The present invention provides a novel and non-obvious use of the data communications channel in overhead of frames in the synchronous optical network. As shown in Figure 2 and Figure 3 of the specification and described at page 2, lines 5 through 22, the prior art techniques did not use a data communications channel in SONET or SDH overhead, but used either a separate network or embedded management information in a data path. The present invention obviates the above deficiencies of the known techniques by tunneling management data and other information to and from remotely located IP NEs via the SONET or SDH DCC by placing IP over the CLNP, as stated at page 2, line 24 through page 3, line 2.

The cited prior art fails to show the requirement of claim 24, *inter alia*, of, “an IP tunneling layer network interface that translates the IP packets into a second protocol to be

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communicated over a data communication channel in overhead of synchronous optical frames in the synchronous optical network." As stated in the Office Action, the Mazzola reference does not show routing IP over SONET. Furthermore, the Katz reference fails to add to the disclosure of the Mazzola reference. The Katz reference nowhere discloses a synchronous optical network or a DCC channel in SONET or SDH overhead or transmitting IP packets over DCC channel in a SONET or SDH network.

Even if the Mazzola reference and the Katz reference are combined, neither suggests or discloses translating IP packets to be communicated over a data communications channel in overhead of a synchronous optical frame. The motivation provided by the Office Action is a quote from the specification, "The present invention obviates the above deficiencies of the known techniques by tunneling management data and other information to and from remotely located IP NEs via the SONET DCC by placing IP over the Connectionless Network Protocol that is present in OSI." The citation of the specification's own teachings to argue obviousness over prior art is improper. *In re Dembiczak*, 175 F.3d 994, 999, (criticizing hindsight syndrome wherein that which only the inventor taught is used against the teacher). "The court must be ever alert not to read obviousness into an invention on the basis of the applicant's own statements; that is, we must view the prior art without reading into that art appellant's teachings." *Application of Nomiya*, 184 U.S.P.Q. 607, 612 (Cust. & Pat.App. 1975).

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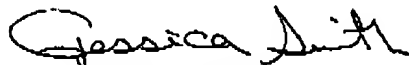
Network Protocol (CLNP) supported by the associated OSI routing protocols, as a replacement for IP. The quotation in the Office Action of mapping IP functionality to CLNP on page 44 of the Katz reference explains how CLNP can be used as a replacement to IP, stating, "Using CLNP in place of IP requires that all three services of IP visible from the transport layer be mapped to CLNP." Thus, the Katz reference nowhere promotes the translation of IP into CLNP but rather the replacement of IP with CLNP. And in any case, the Katz reference fails to disclose a synchronous optical network or a DCC channel in synchronous optical network overhead or use of the DCC in synchronous optical overhead to transmit management data to a remotely located IP device.

Conclusion

For the above reasons, the foregoing amendment places the Application in condition for allowance. Therefore, it is respectfully requested that the rejection of the claims be withdrawn and full allowance granted. Should the Examiner have any further comments or suggestions, please contact Jessica Smith at (972) 477-9109.

Respectfully submitted,

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